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deny the new session on the basis of the new system FER estimate is then made.

Key et al.

The Key *et al.* reference discloses a method and apparatus for controlling a communication network, in particular, an asynchronous transfer mode (ATM) network. In the Key *et al.* reference, an apparatus controls acceptance of a call for a network node by determining from an effective bandwidth and a call carrying capacity C a quality of service for the node should the call be accepted, and comparing the determined quality of service with a required quality of service. If the determined quality of service is not less than the required quality of service the call is accepted for the node (see column 3, lines 17 to 35 of the Key *et al.* reference). This procedure is done for each element in a route (see column 8, lines 58 to 61; and Figure 6 of the Key *et al.* reference). In the Key *et al.* reference, the QoS (Quality of Service) is based on bandwidth and not a FER.

Contrary to cellular systems, in ATM networks there is no such thing as a "frame error". Instead, cells which are time divisions of multiplexing schemes containing packets of data can be lost or delayed. Bandwidth refers to the cell throughput for ATM. There are typically few errors *per se* in a wired ATM network.

Beming et al.

The Beming *et al.* reference discloses a multi-user communication system, such as a cellular communication system, which permits a plurality of users to concurrently communicate therethrough. More particularly, the Beming *et al.* reference discloses a method, and associated circuitry, for selectively permitting additional users to communicate by way of the communication system. An additional user is permitted to access the communication system only when the levels of communication quality of ongoing communications are better than a selected threshold. The Beming *et al.* reference teaches that a FER for each wireless terminal may be employed to determine "levels of quality of ongoing communications". On the basis of this, the additional call admitted permits, or denies, admission of additional communications in the communication system.

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Claim 1

To begin, there are three requirements for establishing a *prima facie* case of obviousness: 1) all features must be present; 2) there must be an expectation of a reasonable chance of success; and 3) there must be some suggestion or motivation in the prior art to combine the references.

There must be an expectation of a reasonable chance for success.

Claim 1 is directed to a method of performing a multi-user communication system of a request for a new session and recites:

"making an estimate of a new system FER which will result should the new session be admitted; and

deciding to admit or to deny the new session on the basis of the new system FER estimate".

The Examiner has cited the Key *et al.* reference against these claim features; however, as admitted by the Examiner the Key *et al.* reference "does not teach using frame error rates (FER) as a QoS determiner". The Examiner then states "Beming teaches using Frame Error Rates (FER) as a QoS determiner (col. 6, lines 45-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using frame error rates (FER) as a QoS determiner of Beming to the system of Key to improve the system performance in interference environment".

As discussed above, the method and apparatus in the Key *et al.* reference is applied to ATM networks, whereas in the Beming *et al.* reference a multi-user communication system is applied to cellular networks. The solutions taught in the Key *et al.* and Beming *et al.* references are incompatible with each other. In particular, as discussed above in ATM networks, cells can be delayed or lost; however, there are no frame errors, and cell errors are rare. Since there are no frame errors, using a FER as a QoS determiner would result in all calls being accepted. This is clearly not what is contemplated in claim 1. As such, in the Key *et al.* reference, it makes no sense to use a FER as a QoS determiner and there is no reason to believe that the combination

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produces the desired result of the invention as claimed in claim 1. Therefore, requirement 2) for a *prima facie* of obviousness is not satisfied.

There must be some suggestion or motivation in the prior art to combine the references.

The method and apparatus of the Key *et al.* reference is applied to ATM networks, whereas in the Beming *et al.* reference a multi-user communication system is applied to cellular networks. These are two different applications requiring different solutions which are not compatible with each other and there is no reason to believe that one of skill in the art would be led to combine teachings from these two types of applications. For example, as discussed above, it makes no sense to make use of a FER found in the cellular network of the Beming *et al.* reference as a QoS determiner for call admission in the ATM network of the Key *et al.* reference. As such, there is no suggestion or motivation found in the prior art to combine the references but rather the above analysis shows that the teachings in the cited references cannot be combined. Thus, requirement 3) for a *prima facie* case of obviousness is not satisfied.

Not all requirements for a *prima facie* case of obviousness are satisfied.

The Examiner is respectfully requested to withdraw his 35 U.S.C. 103(a) rejection of claim 1.

#### Claim 10

Claim 10 depends on claim 1 and should be allowed for the same reasons as discussed above with reference to claim 1. The Examiner is respectfully requested to withdraw his 35 U.S.C. 103(a) rejection of claim 10.

#### Claim 14

Claim 14 is directed to a MAC (Media Access Control) layer implementation device operable to perform call admission control upon receipt of a request for a new session, and should be allowed for the same reasons as discussed above with reference to claim 1.

The Examiner is respectfully requested to withdraw his 35 U.S.C. 103(a) rejection of claim 14.

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Claims 15, 16, 18, and 19

Claims 15 and 16 are directed to a base station. Claim 18 is directed to a call admission control apparatus, and claim 19 is directed to an article of manufacture. These claims should be allowed for the same reasons as discussed above with reference to claim 1.

The Examiner is respectfully requested to withdraw his 35 U.S.C. 103(a) rejection of claims 15, 16, 18 and 19.

Applicant notes the Examiner's comment found in Paragraph 2 of the Detailed Action in which the Examiner states that claims 2 to 9, 11 to 13, and 20 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims; however, given the above discussion Applicant elects to leave these claims unamended.

In view of the forgoing, early favorable consideration of this application is earnestly solicited.

Respectfully submitted,

By

James McGraw  
Reg. No. 26,168  
Smart & Biggar  
Box 2999, Station D  
55 Metcalfe Street, Suite 900  
Ottawa, Ontario  
Canada K1P 5Y6  
Tel.: (613) 232-2486  
Fax: (613) 232-8440

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JMc:MPP:cmd